

Bibliography of carbohydrate polymers

(Four weeks journals. Search completed at 6th Sept 1995)

1 BOOKS, REVIEWS & SYMPOSIA

- Int J Biol Macromol* 1995 17 (3-4)
 Special issue: The III International Satellite Symposium on the Conformational Analysis of Carbohydrates and Protein/Carbohydrate Interactions, Val Morin, Quebec, Canada
- Zuckerindustrie* 1995 120 (6) 552
 XLVI Starch convention in Detmold (Abstracts) (German)
- Nawrath C, Poirier Y, Somerville C// Univ Fribourg, Inst Biol Vegetale & Phytochim, CH-1700 Fribourg, Switzerland
Mol Breeding 1995 1 (2) 105
 Plant polymers for biodegradable plastics: Cellulose, starch and polyhydroxyalkanoates (Mini-review)
- Tyrell DJ, Kilfeather S, Page CP// Glycomed Inc, 860 Atlantic Ave, Alameda, Ca 94501, USA
Trends Pharmacol Sci 1995 16 (6) 198
 Therapeutic uses of heparin beyond its traditional role as an anticoagulant (Review)
- White GW// Sallisaw Equine Clin, POB 733, Sallisaw, Ok 74955, USA
J Equine Vet Sci 1995 15 (7) 296
 Maltodextran, NF powder: A new concept in equine wound healing (Review)

2 CELLULOSE

- Abo-Shosha MH, Ibrahim NA// Natl Res Ctr, Text Res Div, Cairo, Egypt
Angew Makromol Chem 1995 226 23
 Synthesis and characterization of cellulose *N*-methylolacrylamide glycidyl methacrylate methacrylic acid cation exchange resins
- Aoki N, Koganei K, Chang HS, Furuhashi K, Sakamoto M// *Tokyo Inst Technol, Fac Engr, Dept Organ & Polymer Mat, 2-12-1 O-okayama, Meguro-ku, Tokyo 152, Japan
Carbohydr Polym 1995 27 (1) 13
 Gas chromatographic-mass spectrometric study of reactions of halodeoxy-celluloses with thiols in aqueous solutions
- Arai K, Kawahata Y// Gunma Univ, Fac Engr, Kiryu, Gunma 376, Japan
Macromol Chem Phys 1995 196 (7) 2139
 Preparation of a triphenylcarbinol moiety-containing cellulose derivative and its properties
- Arps JH, Weller RA// *Vanderbilt Univ, 221 Kirkland Hall, Nashville, Tn 37235, USA
Nucl Instrum Meth Phys Res B 1995 100 (2-3) 331
 Time of flight elastic recoil analysis of ion beam modified nitrocellulose thin films
- Blasutto M, Delben F*, Milost R, Painter TJ// *Univ Studi Trieste, Dipt Biochim Biofis & Chim Macromolec, Via L Giorgieri 1, I-34127 Trieste, Italy
Carbohydr Polym 1995 27 (1) 53
 Novel cellulosic ethers with low degrees of substitution. I. Preparation and analysis of long-chain alkyl ethers
- Cheng LP, Dwan AH, Gryte CC// *Columbia Univ, Dept Chem Engr Mat Sci & Min Engr, New York, NY 10027, USA
J Appl Polym Sci 1995 57 (5) 563
 Measurements of mutual diffusivities in concentrated solutions of membrane forming polyamides and cellulose acetate
- Dupel P, Bobet JL, Pailler R, Lamon J// Univ Bordeaux 1, SEP, Composites Thermostruct Lab, CNRS, UMR 47, Domaine Univ, 3 Allée Boëtie, F-33600 Pessac, France
J Phys III 1995 5 (7) 937
 Influence of pulse-CVI pyrocarbon interphases on mechanical properties of unidirectional CMC (French, English Abstract)
- Ekpenyong KI, Arawo JDE, Melaiye A, Ekwonchi MM, Abdullahi HA// Univ Jos, Dept Chem, PMB 2084, Jos, Nigeria
Fuel 1995 74 (7) 1080
 Biogas production potential of unextracted, nutrient-rich elephant-grass lignocellulose
- Ferreira RC, Lamberts M, Moreira JBC, Campos MSQ// Maraca 70, BR-91900-640 Porto Alegre, RS, Brazil
J Pediatr Ophthalmol Strab 1995 32 (4) 239
 Hydroxypropylmethylcellulose and sodium hyaluronate in adjustable strabismus surgery
- Galinker EV, Makovetskii AL, Goncharuk VN// Natl Acad Sci Ukraine, Dumanskii Inst Colloid & Water Chem, pr Vernadskogo 42, Kiev 252142, Ukraine
Colloid J-Engl Tr 1995 57 (3) 279
 Conductometric investigation of the asymmetry of cellulose acetate membranes in the longitudinal and transverse directions
- Gao P, Fagermess PE// c/o Skoug JW, Upjohn Co, Analyt Res & Specificat Dev, 7000 Portage Rd, Kalamazoo, MI 49001, USA
Pharmaceut Res 1995 12 (7) 955
 Diffusion in HPMC gels. I. Determination of drug and water diffusivity by pulsed-field-gradient spin-echo NMR
- Gao P, Nixon PR, Skoug JW// *Address as above.
Pharmaceut Res 1995 12 (7) 965
 Diffusion in HPMC gels. II. Prediction of drug release rates from hydrophilic matrix extended-release dosage forms
- Guido S// Univ Naples Federico II, Dipt Ingn Chim, I-80125 Naples, Italy
Macromolecules 1995 28 (13) 4530
 Phase behavior of aqueous solutions of hydroxypropylcellulose
- Kim DW, Jeong YK, Jang YH, Lee JK// Chungbuk Natl Univ, Coll Nat Sci, Dept Chem, Chongju 360763, South Korea
Bull Kor Chem Soc 1995 16 (6) 498
 Adsorption characteristics of endo II and exo II purified from *Trichoderma viride* on microcrystalline celluloses with different surface area
- Kubota H, Suzuki S// Gunma Univ, Fac Engr, Dept Chem, Kiryu, Gunma 376, Japan
Eur Polym J 1995 31 (8) 701
 Comparative examinations of reactivity of grafted celluloses prepared by uv- and ceric salt-initiated graftings
- Martinez JM, Granado JM, Montane D, Salvado J, Farriol X// *Univ Rovira & Virgili, ETS Engr, Dept Engr Quim, Carretera Salou s/n, E-43006 Tarragona, Spain
Bioresource Technol 1995 52 (1) 59
 Fractionation of residual lignocellulosics by dilute-acid prehydrolysis and alkaline extraction: Application to almond shells
- Nishino T, Takano K, Nakamae K// *Kobe Univ, Fac Engr, Dept Sci & Chem Engr, Kobe 657, Japan
J Polym Sci-B Polym Phys 1995 33 (11) 1647
 Elastic modulus of the crystalline regions of cellulose polymorphs
- Niwa K, Takaya T, Morimoto T, Takada K// *Kyoto Pharmaceut Univ, Dept Pharmaceut & Pharmacokinet, Yamashina ku, Kyoto 607, Japan
J Drug Targeting 1995 3 (2) 83
 Preparation and evaluation of a time-controlled release capsule made of ethylcellulose for colon delivery of drugs
- Nystrom B, Thuresson K, Lindman B// Univ Oslo, Dept Chem, POB 1033, N-0315 Oslo 3, Norway
Langmuir 1995 11 (6) 1994
 Rheological and dynamic light-scattering studies on aqueous solutions of a hydrophobically modified nonionic cellulose ether and its unmodified analogue
- Paci M, Federici C, Capitani D, Perenze N, Segre AL// Univ Roma Tor Vergata, Dept Chem Sci & Technol, I-00137 Rome, Italy
Carbohydr Polym 1995 26 (4) 289
 NMR study of paper
- Patel DK, Menon SR, Patel MM, Parmar JS// *Sardar Patel Univ, Dept

As a service to subscribers, each issue of the Journal contains a bibliography of newly published material in the field of carbohydrate polymers. The bibliography is divided into thirteen sections: 1 Books, Reviews & Symposia; 2 Cellulose; 3 Cellulose-degrading Enzymes; 4 Chitin/Chitosan; 5 Cyclodextrins; 6 Lignin; 7 Lipopolysaccharides; 8 Pectin; 9 Starch; 10 Starch-degrading Enzymes; 11 Polysaccharides - Microbial; 12 Polysaccharides - Plant; 13 Polysaccharides - Other. Within each section, articles are listed in alphabetical order with respect to author. When there are no publications to appear under one of these headings, that section will be omitted.

- Chem, Vallabh Vidyanagar 388120, Gujarat, India
Angew Makromol Chem 1995 **226** 47
 Oligomeric benzophenones as antioxidants for cellulose triacetate
- Petzold G, Lunkwitz K// Polymer Res Inst, Hohe St 6, D-01069 Dresden, Germany
Colloid Surface A 1995 **98** (3) 225
 The interaction between polyelectrolyte complexes made from poly(dimethylallylammonium chloride) (PDMDAAC) and poly(maleic acid-co- α -methylstyrene) (P(MS- α -MeSty)) and cellulosic materials
- Primo-Yufera E, Gil-Tortosa CI, Garcia-Breijo FJ// Univ Politecn Valencia, CSIC, Inst Tecnol Quim, Dept Biotechnol, Camino Vera 14, E-46022 Valencia, Spain
Bioresource Technol 1995 **52** (1) 1
 Hydrolysis of corn-cob lignocellulosic residue from pentose preparation
- Reiling S, Brickmann J// *TH Darmstadt, Inst Phys Chem, Petersenstr 20, D-64287 Darmstadt, Germany
Macromol Theory Simul 1995 **4** (4) 725
 Theoretical investigations on the structure and physical properties of cellulose
- Shukla SR, Athalye AR// Univ Bombay, Dept Chem Technol, Matunga, Bombay 400019, Maharashtra, India
J Appl Polym Sci 1995 **57** (8) 983
 Mechanical and thermal properties of glycidyl methacrylate grafted cotton cellulose
- Silva JBAE, De Mancilha IM, Vannetti MCD, Teixeira MA// Fac Engr Quim Lorena, Dept Biotechnol, BR-12600-000 Lorena, SP, Brazil
Bioresource Technol 1995 **52** (2) 197
 Microbial protein production by *Paecilomyces variotii* cultivated in eucalyptus hemicellulosic hydrolyzate
- Skundric P, Mostic M, Jovanovic R, Uscumlic S, Aleksic R// Univ Belgrade, Karadjic Zvezda 4, Belgrade, Yugoslavia
Russ J Appl Chem-Eng Tr 1994 **67** (7 Pt 2) 1041
 Rheological behavior and thermal stability of cellulose solutions in *N*-methylmorpholine *N*-oxide
- Suto S, Yoshida S// Yamagata Univ, Fac Engr, Dept Polymer Chem, Jonan 4-3-16, Yonezawa, Yamagata 992, Japan
Angew Makromol Chem 1995 **226** 89
 Die swell of liquid crystal-forming solutions of hydroxypropyl cellulose through a long capillary die
- Tahara K, Yamamoto K, Nishihata T// *Upjohn Co, Tsukuba Res Labs, Pharm Res Funct, 23 Wadai, Tsukuba, Ibaraki 30042, Japan
J Control Release 1995 **35** (1) 59
 Overall mechanism behind matrix sustained release (SR) tablets prepared with hydroxypropyl methylcellulose 2910
- Varma AJ, Chavan VB// Natl Chem Lab, Chem Engr Div, Polymer Sci & Engr Grp, Pune 411008, Maharashtra, India
Carbohydr Polym 1995 **27** (1) 63
 Some preliminary studies on polyelectrolyte and rheological properties of sodium 2,3-dicarboxycellulose
- Wan LSC, Chui WK// Natl Univ Singapore, Fac Sci, Dept Pharm, 10 Kent Ridge Crescent, Singapore 0511
J Microencapsul 1995 **12** (4) 417
 Deviation of the ratio of drugs in a two-component mixture encapsulated in cellulose phthalate microspheres
- Woodcock S, Henrissat B*, Sugiyama J// *CNRS, Ctr Rech Macromolec Vegetales, BP 53X, F-38041 Grenoble, France
Biopolymers 1995 **36** (2) 201
 Docking of congo red to the surface of crystalline cellulose using molecular mechanics
- Yang Y, Kloczkowski A, Mark JE*, Erman B, Bahar I// *Univ Cincinnati, Dept Chem, Cincinnati, OH 45221, USA
Macromolecules 1995 **28** (14) 4927
 Experimental studies of elastomeric and optical properties, and strain-induced liquid-crystalline phase transitions, in deformed (hydroxypropyl)cellulose networks in the swollen state
- Yusupova LD, Bocek AM, Petropavlovskii GA// Russian Acad Sci, Inst Macromolec Cpds, St Petersburg 199004, Russia
Russ J Appl Chem-Eng Tr 1994 **67** (7 Pt 2) 1051
 Dependence of rheological properties of moderately concentrated solutions of carboxymethyl cellulose on the degree of its neutralization
- Zhang LN, Yang G, Xiao L// Wuhan Univ, Dept Chem, Wuhan 430072, Peoples Rep China
J Membrane Sci 1995 **103** (1-2) 65
 Blend membranes of cellulose cuoxam/casein

3 CELLULOSE-DEGRADING ENZYMES

- Castellanos OF, Sinitsyn AP, Vlasenko EY// Moscow MV Lomonosov State Univ, Dept Chem, Div Chem Enzymol, Moscow, Russia
Bioresource Technol 1995 **52** (2) 109
 Evaluation of hydrolysis conditions of cellulosic materials by *Penicillium* cellulase
- Castellanos OF, Sinitsyn AP, Vlasenko EY// Address as above.
Bioresource Technol 1995 **52** (2) 119
 Comparative evaluation of hydrolytic efficiency toward microcrystalline cellulose of *Penicillium* and *Trichoderma* cellulases
- Chaabouni SE, Belguith H, Hassairi I, M'Rad K, Ellouz R// Ctr Biotechnol Sfax, BP W, Sfax 3038, Tunisia
Appl Microbiol Biotechnol 1995 **43** (2) 267
 Optimization of cellulase production by *Penicillium occitanis*

4 CHITIN/CHITOSAN

- Anthonsen MW, Smidsrod O// Univ Trondheim, Norwegian Inst Technol, Div Biotechnol, Norwegian Biopolymer Lab, N-7034 Trondheim, Norway
Carbohydr Polym 1995 **26** (4) 303
 Hydrogen ion titration of chitosans with varying degrees of *N*-acetylation by monitoring induced ¹H-NMR chemical shifts
- Bodek KH, Kufelnicki A// Med Acad Lodz, Fac Pharm, Inst Chem, PL-90151 Lodz, Poland
J Appl Polym Sci 1995 **57** (5) 645
 Protolytic and complexing properties of microcrystalline chitosan with Co(II), Zn(II), and Cu(II) ions
- Genta I, Pavanetto F, Conti B, Giunchedi P, Conte U// Univ Pavia, Fac Farm, Dipt Chim Farmaceut, Viale Taramelli 12, I-27100 Pavia, Italy
STP Pharma Sciences 1995 **5** (3) 202
 Improvement of dexamethasone dissolution rate from spray-dried chitosan microspheres
- Gonzalez G, Alea J// Univ Catolica Valparaiso, Inst Quim, Casilla 4059, Valparaiso, Chile
J Chem Technol Biotechnol 1995 **63** (3) 247
 Pepsin immobilised by covalent binding to a chitosan derivative
- Ishii H, Koyama M, Mitani T// Tokyo Natl Coll Technol, Dept Sci & Chem Engr, 1220-2 Kunugida, Hachioji, Tokyo 193, Japan
J Environ Sci Health A-Envir 1995 **30** (5) 945
 Removal of organic acids by highly swollen chitosan beads
- Wang XP, Shen ZQ*, Zhang FY, Lin RX// *Zhejiang Univ, Dept Polymer Sci & Engr, Hangzhou 310027, Peoples Rep China
Chem J Chinese Univ-Chinese 1995 **16** (6) 978
 Studies on selective separation of ethanol by pervaporation through poly(vinyl alcohol)chitosan blend membrane
- Zihnioglu F, Telefoncu A// Ege Univ, Fac Sci, Dept Biochem, Izmir, Turkey
Artif Cell Blood Substit Immobil Biotech 1995 **23** (4) 533
 Substrate specificity and the use of chitosan-entrapped rabbit hepatic microsomal UDP-glucuronyl transferase for detoxification
- Zihnioglu F, Telefoncu A// Address as above.
Artif Cell Blood Substit Immobil Biotech 1995 **23** (4) 545
 Preparation and characterization of chitosan-entrapped microsomal UDP-glucuronyl transferase

5 CYCLODEXTRINS

- Aigner Z, Bencz I, Kata M// Albert Szent Gyorgyi Med Univ, Dept Pharmaceut Technol, POB 121, H-6701 Szeged, Hungary
J Inclusion Phenom Mol Recogn 1994 **20** (3) 241
 Increasing the solubility characteristics of fenofibrate with cyclodextrin
- Ashton PR, Boyd SE, Gattuso G, Hartwell EY, Koniger R, Spencer N, Stoddart JF// *Univ Birmingham, Sch Chem, Birmingham B15 2TT, England
J Org Chem 1995 **60** (12) 3898
 A novel approach to the synthesis of some chemically-modified cyclodextrins
- Ashton PR, Hartwell EY, Philp D, Spencer N*, Stoddart JF// *Univ Birmingham, Sch Chem, POB 363, Birmingham B15 2TT, England
J Chem Soc-Perkin Trans II 1995 (7) 1263
 The synthesis and structural mapping of unsymmetrical chemically modified α -cyclodextrins by high-field nuclear magnetic resonance spectroscopy

- Babu RJ, Pandit JK*// *Banaras Hindu Univ, Inst Technol, Dept Pharmaceut, Varanasi 221005, Uttar Pradesh, India
STP Pharma Sciences 1995 5 (3) 196
 Enhancement of dissolution rate and hypoglycemic activity of glibenclamide with β -cyclodextrin
- Bicchi C, D'Amato A, Manzin V, Galli A, Galli M// Univ Turin, Dipt Sci & Tecnol Farm, Via Pietro Giuria 9, I-10125 Turin, Italy
J High Res Chromatogr 1995 18 (5) 295
 Cyclodextrin derivatives for GC separation of racemic mixtures of volatile compounds. VIII. 2,6-di-*O*-methyl-3-*O*-pentyl- γ -cyclodextrin and 2,6-di-*O*-methyl-3-*O*-(4-oxo-pentyl)- and 2,6-di-*O*-pentyl-3-*O*-(4-oxo-pentyl)- β - and γ -cyclodextrins
- Botsi A, Yannakopoulou K*, Perly B, Hadjoudis E// *Democritus Natl Res Ctr Phys Sci, Inst Phys Chem, GR-15310 Athens, Greece
J Org Chem 1995 60 (13) 4017
 Positive or adverse effects of methylation on the inclusion behavior of cyclodextrins. A comparative NMR study using pheromone constituents of the olive fruit fly
- Caira MR, Griffith VJ, Nassimbeni LR, Van Oudtschoorn B// Univ Cape Town, Dept Chem, Rondebosch 7700, Rep Sth Africa
J Inclusion Phenom Mol Recogn 1994 20 (3) 277
 X-ray structure and thermal analysis of a 1:1 complex between (*S*)-naproxen and heptakis(2,3,6-tri-*O*-methyl)- β -cyclodextrin
- Fujita K, Tahara T, Ohta K, Nogami Y, Koga T, Yamaguchi M// Nagasaki Univ, Fac Pharmaceut Sci, Bunkyo machi 1-14, Nagasaki 852, Japan
J Org Chem 1995 60 (12) 3643
 A complete set of 2',6'-di-*O*-diactivated α -cyclodextrins
- Habib MJ, Ghosh TK, Akogyeram CO, Ahmadi B// Howard Univ, Coll Pharm & Pharmaceut Sci, Washington, DC 20059, USA
Drug Develop Ind Pharm 1995 21 (15) 1815
 Effects of cyclodextrins and phospholipids in enhancing dissolution of indomethacin
- Harada A, Li J, Kamachi M// Osaka Univ, Fac Sci, Dept Macromolec Sci, Toyonaka, Osaka 560, Japan
J Macromol Sci Pure Appl Chem 1995 A32 (Suppl 5-6) 813
 Preparation of tubular polymers from cyclodextrin
- Ingelse BA, Everaerts FM, Sevcik J, Stransky Z, Fanali S// Eindhoven Univ Technol, Dept Chem, Instrumental Anal Lab, POB 513, 5600 MB Eindhoven, The Netherlands
J High Res Chromatogr 1995 18 (6) 348
 Further study on the chiral separation power of a soluble neutral β -cyclodextrin polymer
- Klyamkin AA, Topchieva IN, Zubov VP// Moscow AV Lomonosov State Univ, Fac Chem, Dept Polymer Sci, Moscow, Russia
Colloid Polym Sci 1995 273 (6) 520
 Monomolecular films of pluronic cyclodextrin inclusion complexes at the water-gas interface
- Laine V, Coste-Sarguet A, Gadelle A, Defaye J, Perly B, Djedaini-Pilard F*// *Ctr Etud Saclay, CEA, SCM, DRECAM, F-91191 Gif sur Yvette, France
J Chem Soc-Perkins Trans II 1995 (7) 1479
 Inclusion and solubilization properties of 6-*S*-glycosyl-6-thio derivatives of β -cyclodextrin
- Lin MF, Jayawickrama DA, Rose RA *et al*// c/o Larive CK, Univ Kansas, Dept Chem, Lawrence, Ks 66045, USA
Anal Chim Acta 1995 307 (2-3) 449
 Nuclear magnetic resonance spectroscopic analysis of the selective complexation of the *cis* and *trans* isomers of phenylalanylproline by β -cyclodextrin
- Miyazawa I, Ueda H*, Nagase H, Endo T, Kobayashi S, Nagai T// *Hoshi Univ, Fac Pharmaceut Sci, Dept Phys Chem, Shinagawa ku, 4-41 Ebara 2-chome, Tokyo 142, Japan
Eur J Pharm Sci 1995 3 (3) 153
 Physicochemical properties and inclusion complex formation of δ -cyclodextrin
- Mori S, Goto M, Mase T, Matsuura A, Oya T, Kitahata S// Amano Pharmaceut Co Ltd, 51 Kunotsubo, Nishiharu cho, Nishikasugai, Aichi 481, Japan
Biosci Biotechnol Biochem 1995 59 (6) 1012
 Reaction conditions for the production of γ -cyclodextrin by cyclodextrin glucanotransferase from *Brevibacterium* sp. No 9605
- Nakamura A, Sato S, Hamasaki K, Ueno A, Toda F// Tokyo Inst Technol, Fac Biosci & Biotechnol, Dept Bioengn, Midori ku, 4259 Nagatsuta cho, Yokohama, Kanagawa 226, Japan
J Phys Chem 1995 99 (27) 10952
 Association of 1:1 inclusion complexes of cyclodextrins into homo- and heterodimers: A spectroscopic study using a TICT-forming fluorescent probe as a guest compound
- Perez F, Jaime C*, Sanchez-Ruiz X// *Univ Autonoma Barcelona, Fac Ciencias, Dept Quim, D-08193 Barcelona, Spain
J Org Chem 1995 60 (12) 3840
 MM2 calculations on cyclodextrins: Multimodal inclusion complexes
- Sepaniak MJ, Copper CL, Whitaker KW, Anigbogu VC// Univ Tennessee, Dept Chem, Knoxville, Tn 37996, USA
Anal Chem 1995 67 (13) 2037
 Evaluation of a dual-cyclodextrin phase variant of capillary electrokinetic chromatography for separations of nonionizable solutes
- Shiotani K, Irie T, Uekama K*, Ishimaru Y// *Kumamoto Univ, Fac Pharmaceut Sci, 5-1 Oe Honmachi, Kumamoto 862, Japan
Eur J Pharm Sci 1995 3 (3) 139
 Cyclodextrin sulfates in parenteral use: Protection against gentamicin nephrotoxicity in the rat

6 LIGNIN

- De Chirico A, Audisio G*, Provasoli F, Schieroni AG, Focher B, Grossi B// *CNR, Ist Chim Macromolec, Via E Bassini 15, I-20133 Milan, Italy
Angew Makromol Chem 1995 228 51
 Differential scanning calorimetry and thermal gravimetric analysis of lignin blended with triglycidyl isocyanurate
- Heijnesson A, Simonson R, Westermark U// Chalmers Univ Technol, Dept Forest Prod & Chem Engr, S-41296 Gothenburg, Sweden
Holzforchung 1995 49 (4) 313
 Removal of lignin-rich surface material from unbleached Kraft fibres
- Kuznetsov BN, Shchipko ML// Russian Acad Sci, Inst Chem Nat Organ Mat, Krasnoyarsk 660036, Russia
Bioresource Technol 1995 52 (1) 13
 The conversion of wood lignin to char materials in a fluidized bed of Al-Cu-Cr oxide catalysts
- Shimatani K, Sano Y// Hokkaido Univ, Fac Agr, Kita ku, Kita 9, Nishi 9, Sapporo, Hokkaido 060, Japan
Holzforchung 1995 49 (4) 351
 Preparation of softwood kraft lignin-based cold-setting wood adhesives
- Thring RW, Griffin SL// Univ New Brunswick, Dept Chem Engr, POB 4400, Fredericton, New Brunswick, Canada E3B 5A3
Can J Chem 1995 73 (5) 629
 The heterogeneity of two Canadian kraft lignins
- Uraki Y, Kubo S, Nigo N, Sano Y, Sasaya T// Hokkaido Univ, Fac Agr, Dept Forest Sci, Wood Chem Lab, Kita ku, Kita 9, Nishi 9, Sapporo, Hokkaido 060, Japan
Holzforchung 1995 49 (4) 343
 Preparation of carbon fibers from organosolv lignin obtained by aqueous acetic acid pulping
- Vazquez G, Antorrena G, Gonzalez J// Univ Santiago de Compostela, Fac Chem, Dept Chem Engr, Avda Ciencias s/n, E-15706 Santiago de Compostela, Spain
Wood Sci Technol 1995 29 (4) 267
 Kinetics of acid catalysed delignification of *Eucalyptus globulus* wood by acetic acid

7 LIPOPOLYSACCHARIDES

- Fukuoka S, Kodama M, Karube I// Shikoku Natl Ind Res Inst, 2217-14 Hayashi cho, Takamatsu 76103, Kagawa, Japan
Thermochim Acta 1995 257 93
 Thermotropic phase behavior of membranes made from *Erwinia carotovora* rough form lipopolysaccharide
- Pozsgay V// NICHD, Dev & Molec Immun Lab, Bethesda, Md 20892, USA
J Amer Chem Soc 1995 117 (25) 6673
 Synthesis of a hexadecasaccharide fragment of the O-polysaccharide of *Shigella dysenteriae* type 1

8 PECTIN

- Ind Aliment* 1995 34 (336) 429
 Pectins for all tastes (Italian, English Abstract)
- Chang CY, Lai LR, Chang WH// Da-Yeh Inst Technol, Dept Food Engr, Dah-Tsuen, Chang-Hwa, Taiwan
Food Chem 1995 53 (4) 409

Relationships between textural changes and the changes in linkages of pectic substances of sweet pepper during cooking processes, and the applicability of the models of interactions between pectin molecules

Coffin DR, Fishman ML, Cooke PH// USDA ARS, Eastern Reg Res Ctr, Plant Sci & Technol Res Unit, 600 East Mermaid Lane, Philadelphia, Pa 19118, USA

J Appl Polym Sci 1995 57 (6) 663

Mechanical and microstructural properties of pectin/starch films

Dejewska A, Mazurkiewicz J, Tomasik P, Zaleska H// Hugon Kollataj Acad Agr, Dept Chem, Mickiewicz Ave 21, PL-30120 Krakow, Poland
Starch 1995 47 (6) 219

Electrochemical synthesis of polysaccharide-protein complexes. I. Preliminary studies on apple pectin-albumin complexes

Fayyaz A, Asbi BA, Ghazali HM, Che Man YB, Jinap S// Univ Pertanian Malaysia, Fac Food Sci & Biotechnol, 43400, UPM, Serdang, Malaysia
Food Chem 1995 53 (4) 391

Stability studies of papaya pectinesterase

Heinrichova K, Heinrich J, Dzurova M// Slovak Acad Sci, Inst Chem, Dubravska Cesta 9, Bratislava 84238, Slovakia
Collect Czech Chem Commun 1995 60 (2) 328

Partial characterization of the active site of carrot poly(galacturonate) hydrolase and degradation of oligo(α -galactosiduronates)

Klein JD, Hanzon J, Irwin PL, Ben Shalom N, Lurie S// Agr Res Org, Volcani Ctr, IL-50250 Bet Dagan, Israel

Phytochemistry 1995 39 (3) 491

Pectin esterase activity and pectin methyl esterification in heated golden delicious apples

Kratchanova M, Stoilova A, Panchev I, Richnev A// Bulgarian Acad Sci, Inst Organ Chem, Biol Act Substances Lab, POB 27, BU-4002 Plovdiv, Bulgaria

Food Hydrocolloid 1995 9 (2) 97

Characteristics and application of pectin extracts in cigarette production

Zhemerichkin DA, Ptitchkina NM// *Russian Acad Agr Sci, Agr Biotechnol Res & Technol Inst, Saratov 410020, Russia
Food Hydrocolloid 1995 9 (2) 147

The composition and properties of pumpkin and sugar beet pectins

9 STARCH

Bhattacharya M, Vaidya UR, Zhang DM, Narayan R// Univ Minnesota, Dept Agr & Biosyst Engr, St Paul, Mn 55108, USA

J Appl Polym Sci 1995 57 (5) 539

Properties of blends of starch and synthetic polymers containing anhydride groups. II. Effect of amylopectin:amylose ratio in starch

Chassaing C, Thienpont MHSA, Felix G// ENSCPB, CNRS, URA 35, BP 108, Ave Berland, F-33402 Talence, France

J High Res Chromatogr 1995 18 (6) 389

Tris(phenylcarbamate) derivatives of amylopectin as chiral stationary phases in HPLC

Cura JA, Jansson PE, Krisman CR// Univ Buenos Aires, Fac Ciencias Exactas & Nat, Fdn Campomar, Inst Invest Bioquim Luis F Leloir, RA-1405 Buenos Aires, DF, Argentina
Starch 1995 47 (6) 207

Amylose is not strictly linear

Cura JA, Krisman CR// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, CONICET, Inst Invest Bioquim Buenos Aires, RA-1405 Buenos Aires, DF, Argentina

Starch 1995 47 (6) 210

Maize mutants. I. Studies on their starch components

Degling L, Stjarnkvist P// Innovex Nordic AB, Dragarbrunnsgata 31, S-75320 Uppsala, Sweden
Vaccine 1995 13 (7) 629

Biodegradable microspheres. XVIII. The adjuvant effect of polyacryl starch microparticles with conjugated human serum albumin

Fishman ML, Cooke P, White B, Damert W// USDA ARS, Eastern Reg Res Ctr, 600 East Mermaid Lane, Philadelphia, Pa 19118, USA
Carbohydr Polym 1995 26 (4) 245

Size distributions of amylose and amylopectin solubilized from corn starch granules

Godet MC, Bizot H, Buleon A// *INRA, BP 1627, F-44316 Nantes, France

Carbohydr Polym 1995 27 (1) 47

Crystallization of amylose-fatty acid complexes prepared with different amylose chain lengths

Kennedy JF, Taylor DW*, Knill CJ// *Univ Birmingham, Sch Chem, Birmingham Carbohydrate & Prot Technol Grp, POB 363, Birmingham B15 2TT, England

Starch 1995 47 (6) 213

The effects of busan preservative on apparent starch purity using the EC Ewers method

Lauzon RD, Shiraishi K, Yamazaki M, Sawayama S, Sugiyama N, Kawabata A// Visayas State Coll Agr, Dept Agr Chem & Food Sci, Leyte 7127A, Philippines

Food Hydrocolloid 1995 9 (2) 77

Physicochemical properties of cocoyam starch

Le Bail P, Bizot H, Pontoire B, Buleon A// INRA, Ctr Rech Nantes, Physicochim Macromolec Lab, Code 783, rue Geraudiere, BP 1627, F-43126 Nantes, France

Starch 1995 47 (6) 229

Polymorphic transitions of amylose-ethanol crystalline complexes induced by moisture exchanges

Ong MH, Blanshard JMV// *Univ Nottingham, Dept Appl Biochem & Food Sci, Sutton Bonington Campus, Loughborough LE12 5RD, England
J Cereal Sci 1995 21 (3) 251

Texture determinants in cooked, parboiled rice. I. Rice starch amylose and the fine structure of amylopectin

Qu HB, Zhang XE, Chui WW, Zhang SZ, Li GX, Fan OY// Chinese Acad Sci, Wuhan Inst Virol, Wuhan 430071, Peoples Rep China
Biotechnol Technique 1995 9 (6) 445

Kinetic study on starch hydrolysis using a glucose/maltose sensing system

Shiraishi K, Lauzon RD, Yamazaki M, Sawayama S, Sugiyama N, Kawabata A// Tokyo Univ Agr & Technol, Fac Agr, Dept Nutr, Setagaya ku, 1-1-1 Sakuragaoka, Tokyo 156, Japan

Food Hydrocolloid 1995 9 (2) 69

Rheological properties of cocoyam starch paste and gel

Sudhakar V, Singhal RS, Kulkarni PR// Univ Bombay, Dept Chem Technol, Food & Fermentat Technol Div, Matunga, Bombay 400019, Maharashtra, India

Food Chem 1995 53 (4) 405

Studies on starch-hydrocolloid interactions: Effects of salts

Weissenborn PK, Warren LJ*, Dunn JG// Address not available.

Colloid Surface A 1995 99 (1) 11

Selective flocculation of ultrafine iron ore. I. Mechanism of adsorption of starch onto hematite

10 STARCH-DEGRADING ENZYMES

El-Sayed H, Laszlo E// Tanta Univ, Fac Agr, Dept Food Sci, Kafr Al-Sheikh, Egypt

Acta Aliment 1994 23 (4) 359

Condensation of glucose by the reversed hydrolysis reaction of glucoamylase. III. Effect of organic solvents and immobilization forms

Franco CML, Ciacco CF, Tavares DQ// Univ Nacl Estadual Sao Paulo, Dept Engr & Tecnol Alimentos, Caixa Postal 136, BR-15054-000 Sao Jose, SP, Brazil

Starch 1995 47 (6) 223

Effect of the heat-moisture treatment on the enzymatic susceptibility of corn starch granules

Gibson TS, Solah V, Holmes MRG, Taylor HR// New Sth Wales Agr & Fisheries, Biol & Chem Res Inst, PMB 10, Rydalmere, NSW 2116, Australia

J Inst Brew 1995 101 (4) 277

Diastatic power in malted barley: Contributions of malt parameters to its development and the potential of barley grain β -amylase to predict malt diastatic power

Morcel C, Emborg C*, Madsen S, Biedermann K// *Tech Univ Denmark, Dept Biotechnol, Bldg 223, DK-2800 Lyngby, Denmark
Biotechnol Lett 1995 17 (6) 643

α -Amylase production by *Bacillus amyloliquefaciens* in a membrane recycle bioreactor

Payre N, Cottaz S, Driguez H// *Ctr Rech Macromolec Vegetales, CNRS, BP 53X, F-38041 Grenoble 9, France

Angew Chem Int Ed 1995 34 (11) 1239

Chemoenzymatic synthesis of a modified pentasaccharide as a specific substrate for a sensitive assay of α -amylase by fluorescence quenching

Salva TJG, Moraes IO// Inst Tecnol Alimentos, Avda Brasil 2880, Caixa Postal 139, BR-13073-001 Campinas, SP, Brazil

Rev Microbiol 1995 26 (1) 46

Effects of the carbon source on α -amylase production by *Bacillus subtilis*

BA-04

Silva ER, Yim DK, Sato HH, Park YK*// *UNICAMP, Fac Engr Ali-mentos, Caixa Postal 6121, Campinas, Brazil
Rev Microbiol 1995 26 (1) 41

Purification and characterization of extracellular amyloglucosidase from *Candida* sp and its use for the production of glucomaltose syrup

Witt W, Sauter JJ// Christian Albrechts Univ Kiel, Inst Bot, Olshausenstr 40, D-24098 Kiel, Germany

J Plant Physiol 1995 146 (1-2) 15

Partial purification of amylases and starch phosphorylases from poplar wood

Witt W, Sauter JJ// Address as above.

J Plant Physiol 1995 146 (1-2) 35

In vitro degradation of starch grains by phosphorylases and amylases from poplar wood

11 POLYSACCHARIDES - MICROBIAL

Andersen SI, Birdi KS, Kleinitz W, Littmann W// Tech Univ Denmark, Dept Chem Engr IVC-SEP, Bldg 229, DK-2800 Lyngby, Denmark
Carbohydr Polym 1995 26 (4) 299

Heat of wetting (hydration) of xanthan as determined by calorimetry

Baig S, Ahmad HS// Pakistan Council & Sci & Ind Res, Div Res & Industrializat, Biotechnol & Food Res Ctr, Labs Complex, Lahore 54600, Pakistan

J Ferment Bioeng 1995 79 (6) 572

Effects of agitator configuration and rotational speed on the production of extracellular polysaccharide by *Xanthomonas cucurbitae* PCSIR B-52

De Smedt SC, Lauwers A, Demeester J, Van Steenberghe MJ, Hennink WE, Roefs SPFM// State Univ Ghent, Gen Biochem & Phys Pharm Lab, Wolterslaan 16, B-9000 Ghent, Belgium
Macromolecules 1995 28 (14) 5082

Characterization of the network structure of dextran/glycidyl methacrylate hydrogels by studying the rheological and swelling behavior

Fett WF, Wijey C// USDA ARS, Eastern Reg Res Ctr, 600 East Mermaid Lane, Philadelphia, Pa 19118, USA

J Ind Microbiol 1995 14 (5) 412

Yields of alginates produced by fluorescent pseudomonads in batch culture

Grobbe GJ, Sikkema J, Smith MR, De Bont JAM// Agr Univ Wageningen, Dept Food Sci, Div Ind Microbiol, POB 8129, 6700 EV Wageningen, The Netherlands

J Appl Bacteriol 1995 79 (1) 103

Production of extracellular polysaccharides by *Lactobacillus delbrueckii* sec *bulgaricus* NCFB 2772 grown in a chemically defined medium

Hanselmann R, Burchard W, Lemmes R, Schwengers D// Univ Freiburg, Inst Makromolek Chem, Stefan Meier Str 31, D-79104 Freiburg, Germany

Macromol Chem Phys 1995 196 (7) 2259

Characterization of DEAE-dextran by means of light scattering and combined size-exclusion chromatography low-angle laser light scattering viscometry

Hember MWN, Morris ER*// *Cranfield Univ, Silsoe Coll, Dept Food Res & Technol, Silsoe MK45 4DT, Beds, England

Carbohydr Polym 1995 27 (1) 23

Solubility, solution rheology and salt-induced gelation of welan polysaccharide in organic solvents

Hoq MM, Solomon BO, Hempel C, Rinas U, Deckwer WD*// *Gesell Biotechnol Forsch MbH, BVT, Div Biochem Engr, Mascheroder Weg 1, D-38124 Braunschweig, Germany

J Chem Technol Biotechnol 1995 63 (3) 229

The kinetics of cellulase free xylanase excretion by *Thermomyces lanuginosus* RT9

Ilina TY, Sibikina OV, Iozep AA// St Petersburg Chem Pharmaceut Inst, St Petersburg, Russia

Zh Org Khim 1994 30 (9) 1326

New approach to the chemical modification of dextran (Russian)

Kanzawa Y, Harada A, Takeuchi M, Yokota A, Harada T*// *Kobe Women's Univ, Kobe 654, Japan

Int J Syst Bact 1995 45 (3) 515

Bacillus curdlanolyticus sp nov and *B. kobensis* sp nov, which hydrolyze resistant curdlan

Likhoshershtov LM, Senchenkova SN, Knirel YA, Shashkov AS, Shibaev VN, Stepnaya OA, Kulaev IS*// *Russian Acad Sci, ND Zelinskii Organ Chem Inst, Leninsky prospekt 47, B-334, Moscow, Russia

FEBS Lett 1995 368 (1) 113

Structure of an acidic polysaccharide present in the bacteriolytic complex lysoamidase

Mehvar R, Robinson MA, Reynolds JM// Drake Univ, Coll Pharm & Hlth Sci, 28th & Forest, Des Moines, Ia 50311, USA

J Pharm Sci 1995 84 (7) 815

Dose dependency of the kinetics of dextrans in rats: Effects of molecular weight

Morin A, Heckert M, Poitras E, Leblanc D, Brion F, Moresoli C// Agr & AgriFood Canada, Ctr Food Res & Dev, 3600 Casavant Blvd West, St Hyacinthe, Quebec, Canada J2S 8E3

J Appl Bacteriol 1995 79 (1) 30

Exopolysaccharide production on low-grade maple sap by *Enterobacter agglomerans* grown in small scale bioreactors

Mozzi F, De Giori GS, Oliver G, De Valdez GF// CERELA, Chacabuco 145, Tucuman, Argentina

Milchwissenschaft 1995 50 (6) 307

Exopolysaccharide production by *Lactobacillus casei*. II. Influence of the carbon source

Ogawa E// Showagakuin Jr Coll, Higashisugano 2-17-1, Chiba 272, Japan

Polym J 1995 27 (6) 567

Conformational properties of tetramethylammonium gellan gum in aqueous solutions

Rao M, Khadilkar S, Deshpande V*// *Nat'l Chem Lab, Div Biochem Sci, Poona, Maharashtra 411, India

Biotechnol Lett 1995 17 (6) 589

Chemical modification of xylanase from *Chainia* sp (NCL 82.5.1)

Sasaki H, Yamamura K, Tei CY, Nishida K, Nakamura J// Nagasaki Univ, Sch Pharmaceut Sci, 1-14 Bunkyo machi, Nagasaki 852, Japan

J Drug Targeting 1995 3 (2) 129

Ocular permeability of FITC-dextran with absorption promoter for ocular delivery of peptide drug

Stokke BT, Elgsaeter A, Smidsrod O, Christensen BE// Univ Trondheim, NTH, Norwegian Biopolymer Lab, N-7034 Trondheim, Norway

Carbohydr Polym 1995 27 (1) 5

Carboxylation of scleroglucan for controlled crosslinking by heavy metal ions

Thakur S, Prasad MS*, Rastogi NK*// *Cent Food Technol Res Inst, Dept Microbiol & Bioengn, Mysore 570013, Karnataka, India

Food Hydrocolloid 1995 9 (2) 141

Effect of xanthan on textural properties of idli (traditional south Indian food)

Wang YC, McNeil B*// *Univ Strathclyde, Dept Biosci & Biotechnol, Glasgow G1 1XW, Scotland

J Chem Technol Biotechnol 1995 63 (3) 215

Production of the fungal exopolysaccharide scleroglucan by cultivation of *Sclerotium glaucum* in an airlift reactor with an external loop

12 POLYSACCHARIDES - PLANT

Annisson G, Moughan PJ, Thomas DV// Rhone Poulenc AG Co, Anim Nutr, 300 Beach Rd, 2701 Concourse, Singapore 0719, Singapore

Brit Poultry Sci 1995 36 (3) 479

Nutritive activity of soluble rice bran arabinoxylans in broiler diets

Barrett A, Kaletunc G, Rosenberg S, Breslauer K*// *USA Natick Res Dev & Engr Ctr, Sustainabil Directorate, Natick, Ma 01760, USA

Carbohydr Polym 1995 26 (4) 261

Effect of sucrose on the structure, mechanical strength and thermal properties of corn extrudates

Chen LZ, Feng XW, Zhou JH// Acad Milit Med Sci, Inst Pharmacol & Toxicol, Beijing 100850, People Rep China

Acta Pharmacol Sin 1995 16 (4) 337

Effects of *Rehmannia glutinosa* polysaccharide b on T-lymphocytes in mice bearing sarcoma 180

Chirapart A, Katou Y, Ukeda H, Sawamura M, Kusunose H// Kochi Univ, Fac Agr, Dept Bioresources Sci, Nanko ku, Kochi 783, Japan

Fisheries Science 1995 61 (3) 450

Physical and chemical properties of agar from a new member of *Gracilaria*, *G. lemaneiformis* (Gracilariaceae, Rhodophyta) in Japan

Dale CJ, Morris LO, Lyddiatt A, Leather RV// Univ Birmingham, Sch Chem Engr, Ctr Biochem Engr, BBSRC, Biochem Recovery Grp, Birmingham B15 2TT, England

J Inst Brew 1995 101 (4) 285

Studies on the molecular basis of wort clarification by copper fining agents (κ -carrageenan)

- De Groot B, Van Dam JEG, Van't Riet K// Agrotechnol Res Inst, DLO, Div Agrofibras & Cellulose Agrotechnol Res, Pulp & Paper Technol Sect, 6700 Wageningen, The Netherlands
Holzforchung 1995 49 (4) 332
Alkaline pulping of hemp woody core: Kinetic modelling of lignin, xylan and cellulose extraction and degradation
- Dietrich CP, Farias GGM, De Abreu LRD, Leite EL, Da Silva LF, Nader HB// Rua 3 Maio 100, 4 andar, BR-04044 Sao Paulo, Brazil
Plant Sci 1995 108 (2) 143
A new approach for the characterization of polysaccharides from algae: Presence of four main acidic polysaccharides in three species of the class Phaeophyceae
- Doctor VM, Hill C, Jackson GJ// Prairie View A&M Univ, Dept Chem, POB 2576, Prairie View, Tx 77446, USA
Thromb Res 1995 79 (3) 237
Effect of fucoidan during activation of human plasminogen
- Elcin YM// Ankara Univ, Fac Sci, Dept Chem, Ankara 06100, Turkey
Enzyme Microb Technol 1995 17 (7) 587
Bacillus sphaericus 2362-calcium alginate microcapsules for mosquito control
- El-Nawawi SA// Natl Res Ctr, Dept Chem Engr, Dokki, Cairo, Egypt
Carbohydr Polym 1995 27 (1) 1
Extraction of citrus glucosides
- Gimenez MD, Arino C, Esteban M// *Univ Barcelona, Fac Quim, Dept Quim Analit, C/Marti I Franques 1, E-08028 Barcelona, Spain
Anal Chim Acta 1995 310 (1) 121
Voltammetry of Pb(II), Cd(II) and Zn(II) ions in the presence of the sulphated polysaccharide λ -carrageenan
- Girhammar U, Nair BM// Lund Univ, Ctr Chem, Dept Appl Nutr & Food Chem, POB 124, S-22100 Lund, Sweden
Food Hydrocolloid 1995 9 (2) 133
Rheological properties of water soluble non-starch polysaccharides from whole grain rye flour
- Goycoolea FM, Morris ER*, Richardson RK, Bell AE// *Cranfield Univ, Silsoe Coll, Dept Food Res & Technol, Silsoe MK45 4DT, Beds, England
Carbohydr Polym 1995 27 (1) 37
Solution rheology of mesquite gum in comparison with gum arabic
- Goycoolea FM, Morris ER*, Gidley MJ// *Address as above.
Carbohydr Polym 1995 27 (1) 69
Viscosity of galactomannans at alkaline and neutral pH: Evidence of 'hy-perentanglement' in solution
- Kobayashi A, Tai A, Kawazu K// Okayama Univ, Dept Agr Sci, Okayama 700, Japan
J Carbohydr Chem 1995 14 (6) 819
Structural elucidation of an elicitor-active oligosaccharide, LN-3, prepared from algal laminaran
- Kramer P, Wincierz U, Grubler G, Tschakert J, Voelter W, Mayer H// Hoechst AG, Postf 800320, D-65934 Frankfurt, Germany
Arzneim-Forsch-Drug Res 1995 45-1 (6) 726
Rational approach to fractionation, isolation, and characterization of polysaccharides from the lichen *Cetraria islandica*
- Mrani I, Fras G, Benet JC// Univ Montpellier 2, Lab Mecan Genie Civil, CNRS, URA 1214, Pl Eugene Bataillon, F-34095 Montpellier 5, France
J Phys III 1995 5 (7) 985
Microstructure and hygro-mechanics properties of agar gel (French, English Abstract)
- Muda P, Seymour GB, Errington N, Tucker GA// *Univ Nottingham, Dept Appl Biochem & Food Sci, Sutton Bonington Campus, Loughborough LE12 5RD, England
Carbohydr Polym 1995 26 (4) 255
Compositional changes in cell wall polymers during mango fruit ripening
- Mundigler N, Herbinger B, Berghofer E, Schleining G, Grzeskowiak B// Agr Univ Vienna, Inst Food Technol, Peter Jordan Str 82, A-1190 Vienna, Austria
Carbohydr Polym 1995 26 (4) 271
Determination of functional characteristics of a biogenous thermoplastic material
- Muyima NYO, Cloete TE// *Univ Pretoria, Dept Microbiol & Plant Pathol, Environm Biotechnol Lab, Pretoria 0002, Rep Sth Africa
Water SA 1995 21 (3) 239
Immobilisation of *Acinetobacter johnsonii* cells within alginate beads
- Ray AK, Bird PB, Iacobucci GA, Clark BC// Coca Cola Co, Dept Corp Res & Dev, POB 1734, Atlanta, GA 30301, USA
Food Hydrocolloid 1995 9 (2) 123
Functionality of gum arabic. Fractionation, characterization and evaluation of gum fractions in citrus oil emulsions and model beverages
- Saulnier L, Marot C, Chantiaud E, Thibault JF// INRA, BP 1627, Lab Biochim & Technol Glucides, F-44316 Nantes, France
Carbohydr Polym 1995 26 (4) 279
Cell wall polysaccharide interactions in maize bran
- Schorr-Galindo S, Ghommidh C, Guiraud JP// Univ Montpellier 2, Pl E Bataillon, F-34095 Montpellier 5, France
Biotechnol Lett 1995 17 (6) 655
Simultaneous production of sugars and ethanol from inulin rich-extracts in a chemostat
- Uchiyama H, Oguri K, Nishibayashi M, Kokufuta E, Yagi O// Natl Inst Environm Studies, 16-2 Onogawa, Tsukuba, Ibaraki 305, Japan
J Ferment Bioeng 1995 79 (6) 608
Trichloroethylene degradation by cells of a methane-utilizing bacterium, *Methylocystis* sp M, immobilized in calcium alginate
- Verbruggen MA, Beldman G, Voragen AGJ// *Agr Univ Wageningen, Dept Food Sci, POB 8129, 6700 EV Wageningen, The Netherlands
J Cereal Sci 1995 21 (3) 271
The selective extraction of glucuronarabinosylans from sorghum endosperm cell walls using barium and potassium hydroxide solutions
- Viswanathan P, Kulkarni PR// *Univ Bombay, Dept Chem Technol, Div Food & Fermentat Technol, Bombay 400019, Maharashtra, India
Bioresource Technol 1995 52 (2) 181
Saussurea lappa (Kuth) as a new source of inulin for fermentative production of inulinase in a laboratory stirred fermenter
- Yui T, Imada K, Shibuya N*, Ogawa K// *Natl Inst Agrobiol Resources, Dept Cell Biol, Tsukuba, Ibaraki 305, Japan
Biosci Biotechnol Biochem 1995 59 (6) 965
Conformation of an arabinosylan isolated from the rice endosperm cell wall by X-ray diffraction and a conformational analysis

13 POLYSACCHARIDES - OTHER

- Guo ZJ, Kallus S, Akiyoshi K, Sunamoto J// *JRDC, Supermolecules Project, Keihanna Plaza, Seika cho 1-7, Kyoto 61902, Japan
Chem Lett 1995 (6) 415
Artificial cell wall for plant protoplast. Coating of plasma membrane with hydrophobized polysaccharides
- Hirsh J// Hamilton Civ Hosp Res Ctr, 711 Concess St, Hamilton, Ontario, Canada L8V 1C3
Fibrinolysis 1995 9 (Suppl 1) 66
Heparins
- Kerns RJ, Linhardt RJ// *Univ Iowa, Coll Pharm, Div Med & Nat Prod Chem, Iowa City, Ia 52242, USA
J Chromatogr A 1995 705 (2) 369
Separation of hydroxyl protected heparin derived disaccharides using reversed-phase high-performance liquid chromatography
- Khoo KH, Sarda S, Xu XF, Caulfield JP, McNeil MR, Homans SW, Morris HR*, Dell A// *Univ London Imperial Coll Sci & Technol, Dept Biochem, London SW7 2AY, England
J Biol Chem 1995 270 (29) 17114
A unique multifucosylated -3GalNAc β 1 $\rightarrow$ 4GlcNAc β 1 $\rightarrow$ 3Gal α 1- motif constitutes the repeating unit of the complex O-glycans derived from the cercarial glycocalyx of *Schistosoma mansoni*
- Meyer J, Whitcomb L, Treuheit M, Collins D// *Amgen Inc, Dept Pharmaceut & Drug Delivery, Mail Stop 8-1-A-215, 1840 De Havilland Dr, Thousand Oaks, Ca 91320, USA
J Control Release 1995 35 (1) 67
Sustained *in vivo* activity of recombinant human granulocyte colony stimulating factor (rHG-CSF) incorporated into hyaluronan
- Miyazaki Y// Fukuoka Univ Educ, Dept Chem, Fukuoka, Japan
Polyhedron 1995 14 (13-14) 1961
NMR studies on the complexation of aluminium ion with inorganic ligands in crosslinked polysaccharide gel
- Nishi H, Nakamura K, Nakai H, Sato T// Tanabe Seiyaku Co Ltd, Analyt Res Lab, Yodogawa ku, 16-89 Kashima 3 chome, Osaka 432, Japan
Anal Chem 1995 67 (14) 2334
Enantiomeric separation of drugs by mucopolysaccharide-mediated electrokinetic chromatography
- Tamura J, Neumann KW, Ogawa T// *RIKEN, Inst Phys & Chem Res, Wako, Saitama 35101, Japan
Bioorg Medicinal Chem Letter 1995 5 (13) 1351
Synthetic studies on cell-surface glycans. CI. A regio- and stereoselective synthesis of 4-O-sulfated chondroitin di- and tetrasaccharides based on the strategy designed for the elongation of the repeating unit